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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/821,918 | 04/12/2004 | Sung Uk Moon | 251781US90 | 2428 |

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| 22850 | 7590 | 01/30/2008 |
| OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. | | |
| 1940 DUKE STREET | | |
| ALEXANDRIA, VA 22314 | | |

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| EXAMINER | |
| JACKSON, BLANE J | |

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| ART UNIT | PAPER NUMBER |
| 2618 | |

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| NOTIFICATION DATE | DELIVERY MODE |
| 01/30/2008 | ELECTRONIC |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com
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|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/821,918 | MOON ET AL. | |
| | Examiner | Art Unit | |
| | Blane J. Jackson | 2618 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

The rejection to follow has been clarified, in view of the broad claim language and the applicant's Remarks filed 13 November 2007, to clearly show prior art Ue, with reference to figures 1 and 12, discloses a base station comprising a transmission rate switching controller which performs each of the claimed elements; "transmission-quality obtaining unit", "communication terminal selecting unit" and "transmission rate changing unit".

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Ue et al. (US 6,973,289).

As to claims 1 and 7, Ue teaches a wireless base station comprising a transmission controller which controls a plurality of downlink transmission rates corresponding to a plurality of communications terminals based on a plurality of

downlink transmission qualities corresponding to the communications terminals (figure 1, a base station including a transmission rate switching controller (106)) comprising:

A transmission-quality obtaining unit configured to obtain said downlink transmission qualities of said communications terminals (figures 1 and 12, column 3, lines 42-63 and column 6, line 58-66, transmission rate switching controller (106) compares the reception quality measurements result reported from the communication terminals with a threshold),

A communication-terminal selecting unit configured to select out of said communications terminals one or more which cause to change corresponding one or more of the downlink transmission rates in accordance with said downlink transmission qualities obtained at said transmission-quality obtaining unit (figure 1, column 5, lines 31-48 and column 6, lines 26-50, the transmission rate switching controller (106 in the base station switches the transmission rate when the reception quality improves which is *measured on the communication terminal side by a demand from the base station* and determines if the power change request form the terminal is excessive with respect to the amount of interference with other terminals), and

A transmission-rate changing unit which causes to change said one or more of the downlink transmission rates corresponding to said one or more of the communications terminals selected at said communications-terminal selecting unit (figures 1 and 12, column 6, line 26 to column 7, line 58, utilizing a transmission rate switching control circuit (106), the base station switches the transmission rate based on the reception quality measured and received on the uplink by the terminal apparatus).

As to claim 2, Ue teaches the transmission controller as claimed in claim 1 wherein said transmission-quality obtaining unit further comprises one of a transmission-quality measuring unit configured to measure said downlink transmission qualities by said transmission-quality measuring unit itself and a transmission-quality receiving unit configured to receive said downlink transmission qualities measured by and reported from said communications terminals (figures 1, 11 and 12, column 6, line 26 to column 7, line 7, the base station transmission rate switching controller (106) monitors the transmission power of itself and controls the transmission power based on a transmission power control signal sent from the communication terminal apparatus).

As to claim 3, Ue teaches the transmission controller as claimed in claim 1 wherein said communications-terminal selecting unit selects as said one or more of the communications terminals which cause to change said corresponding downlink transmission rates at least one out of said communications terminals with corresponding downlink transmission quality falling below a predetermined quality (figures 12-14, column 6, line 51 to column 7, line 58, the reception quality measurement result from each communications terminal is processed with respect to several thresholds to determine the channel condition to determine to change the transmission rate).

As to claim 4, Ue teaches the transmission controller as claimed in claim 2 wherein said communications-terminal selecting unit selects said one or more of the

communications terminals which cause to change said corresponding downlink transmission rates based on at least one of transmission speeds corresponding to said communication terminal traveling speeds corresponding to said communications terminals, received quality values reported from the corresponding communication terminals, arrival times of said received-quality values reported and arrival orders of said received-quality values reported (column 5, lines 5-27, the transmission rate switching information is reported from the communication terminal apparatus to the base station all the time or reporting on an as-needed basis).

As to claim 5, Ue teaches the transmission controller as claimed in claim 2 wherein said communications-terminal selecting unit selects randomly said one or more of the communications terminals which cause to change said corresponding downlink transmission rates (column 5, lines 5-48, the base station switches the transmission rate when the reception quality improves which is measured on the selected communication terminal side by a demand from the base station).

As to claim 6, Ue teaches the transmission controller as claimed in claim 2 wherein said communications-terminal selecting unit selects said one or more of the communications terminals which cause to change said corresponding downlink transmission rates based on a plurality of ratios relative to a predetermined power value of a plurality of total-transmission power values corresponding to said communications terminals (figure 4, column 4, lines 41-63, ratio calculation circuit (405) calculates the

ratio between the output of interference signal+noise power measurement circuit (404) and the output of desired power measurement circuit (403) where SINR is calculated from this result).

As to claim 8, Ue teaches a method of controlling transmission rate which controls a plurality of downlink transmission rates corresponding to a plurality of communications terminals based on a plurality of downlink transmission qualities corresponding to the communications terminals (column 6, lines 51-57) comprising the steps of:

Obtaining said downlink transmission qualities of said communications terminals (figures 1 and 2, column 3, line 41 to column 4, line 16 and figures 6-11, column 5, line 5 to column 6, line 57),

Comparing with a predetermined quality value corresponding values of said downlink transmission qualities obtained (column 5, lines 31-48 and column 6, line 58 to column 7, line 7, the transmission rate switching controller (106) at the base station compares the reception quality measurement result reported from the communication terminal with one or several thresholds),

Selecting when at least one of said downlink transmission qualities is determined to fall below a predetermined quality as one or more of the communications terminals which cause to change corresponding one or more of the downlink transmission rates at least one communications terminal out of said communications terminals with corresponding downlink transmission quality falling below said predetermined quality

(figure 12, column 6, line 58 to column 7, line 58, the reception quality measurement reported from a terminal is compared to several thresholds to determine the channel condition and select the appropriate transmission rate at the base station),

Changing said downlink transmission rate of said at least one communications terminal selected (figures 12-15 column 7, lines 3-58, if the channel condition is good, the transmission rate is increased to transmit as much data as possible).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Blane J. Jackson whose telephone number is (571) 272-7890. The examiner can normally be reached on Monday through Thursday, 7:30 AM-6:00 PM, EST.

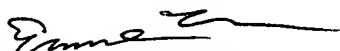
Application/Control Number:
10/821,918
Art Unit: 2618

Page 8

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on (571) 272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BJJ


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